

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005763**Date Inspected:** 14-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Chih-Ming**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG sements and deck panels**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG assembly bay 13

This QA observed ZPMC qualified welding personnel identified as Mr. Niu DuoJun (037932) and Mr. Zhang Jihua (066482) perform SMAW welding on welds identified as SSD43A-PP13.5-105 and 124. ZPMC QC identified as Mr. Zhong Guo Hui was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2112-FCM.

This QA observed ZPMC qualified welding personnel identified as Mr. Yuan Wei (066164), Mr. Liu Hengli (068087) and Mr. Wang Linjiang (051356) perform FCAW welding on welds identified as SEG007A-16, 24 and 26. ZPMC QC identified as Mr. Zhong Guo Hui was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-Tc-U3b-F.

This QA observed ZPMC qualified welding personnel identified as Mr. Wu Wanyong (050242) perform FCAW welding on weld identified as SSD11-PP015-65~104. ZPMC QC identified as Mr. Zhong Guo Hui was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133.

This QA observed ZPMC qualified welding personnel identified as Mr. Zhao Shanlun (066683) perform

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FCAW welding on weld identified as SSD12-PP016-67~106. ZPMC QC identified as Mr. Zhong Guo Hui was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133.

This QA observed ZPMC qualified welding personnel identified as Mr. Li Shuliang (048801) perform FCAW welding on Complete Joint Penetration (CJP) weld identified as SEG007A-15. This QA observed Mr. Li weld over a previous weld pass without performing interpass cleaning as specified in AWS D1.5 2002 section 3.11.1. This QA notified ZPMC QC identified as Mr. Zhong Guo Hui of this issue. Mr. Zhong instructed ZPMC grinding personnel to remove the questionable weld pass by grinding in order to facilitate visual inspection of the underlying weld metal. This QA observed the grinder clean, but not remove the questionable weld pass. The welder, Mr. Li Shuliang, then continued to weld subsequent layers over the area in question. This QA notified ZPMC QC CWI identified as Mr. Chen Chih-Ming and ZPMC QA identified as Mr. Shen Xuejun that an incident report would be issued for this non-compliance.

This QA observed one row of bolt holes in bottom panel on OBG segment identified as 2AW between PP014.5 and PP015 that appear to be too close to the longitudinal diaphragm. The measurement from the edge of the hole to the surface of the diaphragm is 9mm. This QA notified ZPMC QC CWI identified as Mr. Chen Chih-Ming of this issue. Mr. Chen informed this QA that the fillet weld joining the longitudinal diaphragm to the bottom plate is to be 8mm. The toe of the weld will be within 1mm of the edge of the bolt holes which will interfere with bolt installation. Mr. Chen informed this QA that ZPMC inspectors will investigate in order to determine if the problem is due to incorrect hole location, incorrect diaphragm location or a design problem. This QA also notified ZPMC QA identified as Mr. Shen Xuejun of this issue. See attached photos for clarification.

OBG assembly bay 14

This QA observed ZPMC qualified welding personnel identified as Mr. Wang Lanying (045265) perform SAW welding on weld identified as SEG003*-006. ZPMC QC identified as Mr. Zhang Xiao Ming was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA observed ZPMC qualified welding personnel identified as Mr. Jin Zhenghu (037907) and Mr. Liao Yanfei (066398) perform FCAW welding on diaphragm to deck panel welds. The deck panel is identified as DP576-001. ZPMC QC identified as Mr. Zhong Guo Hui was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-Tc-U4b.

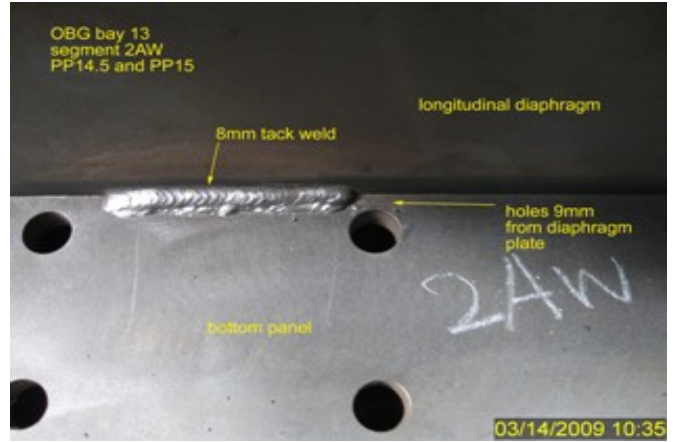
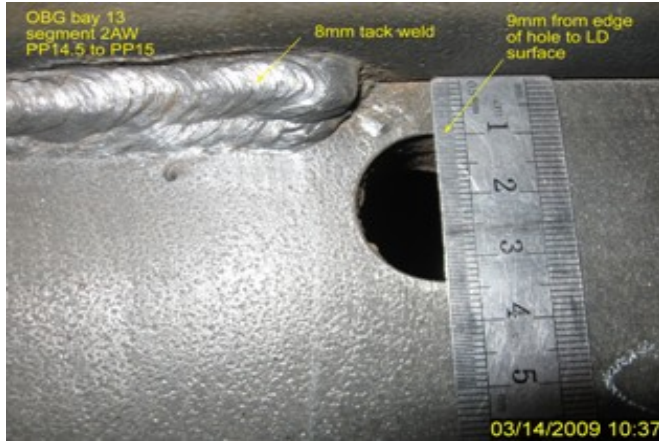
This QA observed ZPMC qualified welding personnel identified as Mr. Song Yinshu (059421) perform FCAW welding on welds identified as DP600-001-024 and 285. ZPMC QC identified as Mr. Li jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F-1.

This QA received ZPMC Non Destructive Testing (NDT) notification No. 002272 and performed 100% Final Visual Testing (FVT) for the U-rib to deck panel Partial Joint Penetration (PJP) welds on deck panel identified as DP580-001. All welds tested appeared to be compliant with the contract documents.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

As mentioned above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall, Steven	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer
